

ABSTRACT

A method of etching a silicon-containing material in a substrate comprises placing the substrate in a process chamber and exposing the substrate to an energized gas comprising fluorine-containing gas, chlorine-containing gas and sidewall-passivation gas. The silicon-containing material on the substrate comprises regions having different compositions, and the volumetric flow ratio of the fluorine-containing gas, chlorine-containing gas, and sidewall-passivation gas is selected to etch the compositionally different regions at substantially similar etch rates.